Exhibit 300: Capital Asset Plan and Business Case Summary

Part I: Summary Information And Justification (All Capital Assets)

Section A: Overview (All Capital Assets)

1. Date of Submission:	4/10/2009
2. Agency:	Department of Energy
3. Bureau:	National Nuclear Security Administration
4. Name of this Capital Asset:	NNSA ASC LANL Roadrunner Platform
5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)	019-05-01-11-01-1050-00
6. What kind of investment will this be in FY 2010? (Please NOTE: Investments moving to O&M in FY 2010, with Planning/Acquisition activities prior to FY 2010 should not select O&M. These investments should indicate their current status.)	Mixed Life Cycle
7. What was the first budget year this investment was submitted to OMB?	FY2007

8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap:

Los Alamos National Laboratory (LANL) has completed the installation and acceptance testing of the Roadrunner Phase 3 hybrid system. The hybrid Roadrunner system will undergo system integration and stabilization testing during the first half of CY2009, including running open science simulations as part of the stabilization efforts. The currently installed ASC Roadrunner Base Capacity System is referred to as Redtail; and the Roadrunner Final system as Roadrunner.

Roadrunner Redtail was acquired to provide capacity compute cycles to meet DOE mission deliverables. It has been providing production cycles since October 2007.

The ASC Roadrunner System continues to support the 2006 DOE Strategic Plan.

9. Did the Agency's Executive/Investment Committee approve this request?	Yes
a. If "yes," what was the date of this approval?	8/21/2008
10. Did the Project Manager review this Exhibit?	Yes
11. Contact information of Program/Project Manager?	
Name	Brinker, Samuel D/Lee, Sander
Phone Number	925-422-0710 202-586-2698
Email	samuel.brinker@oak.doe.gov/ sander.lee@nnsa.doe.gov
a. What is the current FAC-P/PM (for civilian agencies) or DAWIA (for defense agencies) certification level of the program/project manager?	Waiver Issued
b. When was the Program/Project Manager Assigned?	8/8/2008
c. What date did the Program/Project Manager receive the FAC-P/PM certification? If the certification has not been issued, what is the anticipated date for certification?	2/25/2009
12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project?	Yes
a. Will this investment include electronic assets (including computers)?	Yes
b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)	No
1. If "yes," is an ESPC or UESC being used to help fund this investment?	

2. If "yes," will this investment meet sustainable design principles?	
3. If "yes," is it designed to be 30% more energy efficient than relevant code?	
13. Does this investment directly support one of the PMA initiatives?	Yes
If "yes," check all that apply:	Expanded E-Government
a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)	The ASC program supports the Presidential Expanded E-Government initiative through Mission Area Support by enabling collaborations through shared research & development "high performance computing".
14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.)	Yes
a. If "yes," does this investment address a weakness found during a PART review?	No
b. If "yes," what is the name of the PARTed program?	10000076 - National Nuclear Security Administration: Advanced Simulation and Computing (ASC)
c. If "yes," what rating did the PART receive?	Effective
15. Is this investment for information technology?	Yes

If the answer to Question 15 is "Yes," complete questions 16-23 below. If the answer is "No," do not answer questions 16-23.

For information technology investments only:

16. What is the level of the IT Project? (per CIO Council PM Guidance)	Level 3
17. In addition to the answer in 11(a), what project management qualifications does the Project Manager have? (per CIO Council PM Guidance)	(1) Project manager has been validated as qualified for this investment
18. Is this investment or any project(s) within this investment identified as "high risk" on the Q4 - FY 2008 agency high risk report (per OMB Memorandum M-05-23)	Yes
19. Is this a financial management system?	No
a. If "yes," does this investment address a FFMIA compliance area?	
1. If "yes," which compliance area:	
2. If "no," what does it address?	
b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A-11 section 52	

20. What is the percentage breakout for the total FY2010 funding request for the following? (This should total 100%)

Hardware	0
Software	0
Services	100
Other	0
21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?	N/A

22. Contact information of individual responsible for privacy related questions:

Name	Hagerty, Kevin T
Phone Number	202-586-5955
Title	Freedom of Information & Privacy Acts Officer
E-mail	kevin.hagerty@hq.doe.gov
23. Are the records produced by this investment appropriately scheduled with the National Archives and	Yes

Records Administration's approval?

Question 24 must be answered by all Investments:

24. Does this investment directly support one of the GAO High Risk Areas? No

Section B: Summary of Spending (All Capital Assets)

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated "Government FTE Cost," and should be excluded from the amounts shown for "Planning," "Full Acquisition," and "Operation/Maintenance." The "TOTAL" estimated annual cost of the investment is the sum of costs for "Planning," "Full Acquisition," and "Operation/Maintenance." For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

Table 1: SUMMARY OF SPENDING FOR PROJECT PHASES (REPORTED IN MILLIONS)
(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 and earlier	PY 2008	CY 2009	BY 2010	BY+1 2011	BY+2 2012	BY+3 2013	BY+4 and beyond	Total
Planning:	0	0	0	0	0	0	0	0	0
Acquisition:	55.25	59.409	8.183	0	0	0	0	0	122.842
Subtotal Planning & Acquisition:	55.25	59.409	8.183	0	0	0	0	0	122.842
Operations & Maintenance:	0	2.7	2.7	2.7	1.8	0	0	0	9.9
TOTAL:	55.25	62.109	10.883	2.7	1.8	0	0	0	132.742
Government FTE Costs should not be included in the amounts provided above.									
Government FTE Costs	0.03	0.04	0.04	0.05	0.05	0	0	0	0.21
Number of FTE represented by Costs:	1	1	1	1	1	0	0	0	5

Note: For the multi-agency investments, this table should include all funding (both managing partner and partner agencies). Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's? No

a. If "yes," How many and in what year?

3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes:

The contract was awarded after the Exhibit 300 was submitted to OMB in the BY 2008 budget submission.

Section C: Acquisition/Contract Strategy (All Capital Assets)

1. Complete the table for all (including all non-Federal) contracts and/or task orders currently in place or planned for this investment. Total Value should include all option years for each contract. Contracts and/or task orders completed do not need to be included.

Contracts/Task Orders Table: * Costs in millions

Contract or Task Order Number	Type of Contract/ Task Order (In accordance with FAR Part 16)	Has the contract been awarded (Y/N)	If so what is the date of the award? If not, what is the planned award date?	Start date of Contract/ Task Order	End date of Contract/ Task Order	Total Value of Contract/ Task Order ($M)	Is this an Interagency Acquisition? (Y/N)	Is it performance based? (Y/N)	Competitively awarded? (Y/N)	What, if any, alternative financing option is being used? (ESPC, UESC, EUL, N/A)	Is EVM in the contract? (Y/N)	Does the contract include the required security & privacy clauses? (Y/N)	Name of CO	CO Contact information (phone/email)	Contracting Officer FAC-C or DAWIA Certification Level (Level 1, 2, 3, N/A)	If N/A, has the agency determined the CO assigned has the competencies and skills necessary to support this acquisition? (Y/N)
34851-001-06	Phase 1	Yes	9/7/2006	9/7/2006	9/30/2010	34.632638	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
34851-001-06	Phase 2	Yes	9/7/2006	9/7/2006	9/30/2010	12.893	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
34851-001-06	Phase 3	Yes	9/7/2006	9/7/2006	9/30/2010	67.467853	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
42101-001-06	IBM 2GB Memory	Yes	8/2/2006	8/2/2006		5.911376	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
53688-001-07	Sicorp Analysts: FY2007	Yes	7/1/2007	7/1/2007		0.498648	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
53688-001-07	FY2008	Yes	7/1/2007	7/1/2007		1.915979	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
	FY2009	No	7/1/2007	7/1/2007		2.228883	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
	FY2010	No	7/1/2007	7/1/2007		2.205	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
	FY2011	No	7/1/2007	7/1/2007		2.3155	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
58275-001-08	IBM Analysts: FY2008	Yes	12/5/2007	12/5/2007		0.547241	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes

Contracts/Task Orders Table: * Costs in millions

Contract or Task Order Number	Type of Contract/ Task Order (In accordance with FAR Part 16)	Has the contract been awarded (Y/N)	If so what is the date of the award? If not, what is the planned award date?	Start date of Contract/ Task Order	End date of Contract/ Task Order	Total Value of Contract/ Task Order ($M)	Is this an Interagency Acquisition? (Y/N)	Is it performance based? (Y/N)	Competitively awarded? (Y/N)	What, if any, alternative financing option is being used? (ESPC, UESC, EUL, N/A)	Is EVM in the contract? (Y/N)	Does the contract include the required security & privacy clauses? (Y/N)	Name of CO	CO Contact information (phone/email)	Contracting Officer FAC-C or DAWIA Certification Level (Level 1, 2, 3, N/A)	If N/A, has the agency determined the CO assigned has the competencies and skills necessary to support this acquisition? (Y/N)
58275-001-08	FY2009	Yes	12/5/2007	12/5/2007		0.778882	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
	FY2010	No	12/5/2007	12/5/2007		0.755	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes
	FY2011	No	12/5/2007	12/5/2007		0.800	No	Yes	Yes	NA	No	Yes	Melanie T. McDuffie	505-665-4761; melgray@lanl.gov	N/A	Yes

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

This is a Firm Fixed Price Acquisition with milestone payments tied to specific deliverables and schedule dates; and performance on hardware acceptance tests with specific performance criteria. EVM is not required on fixed price investments; ASC Roadrunner cost/schedule progress will be tracked through an analysis of milestone completion within projected cost estimates.

3. Do the contracts ensure Section 508 compliance?	Yes
a. Explain why not or how this is being done?	ASC Roadrunner Platform will conform to Section 508. This is a centralized computer system housed in a large computing facility. The entire building that will house the platform is ANSI A117.1.1998 compliant on which Section 508 is based. Users access the system via network connections. Accessibility issues of those users are the responsibility of their IT Department.
4. Is there an acquisition plan which reflects the requirements of FAR Subpart 7.1 and has been approved in accordance with agency requirements?	Yes
a. If "yes," what is the date?	8/31/2006
1. Is it Current?	Yes
b. If "no," will an acquisition plan be developed?	
1. If "no," briefly explain why:	

Section D: Performance Information (All Capital Assets)

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding "Measurement Area" and "Measurement Grouping" identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond the next President's Budget.

Performance Information Table

Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
2008	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Customer Results	Timeliness and Responsiveness	Delivery Time	Sustained calculation speed measured in calculations per second relative to peak system flop.	60%	63%	69%
2008	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Mission and Business Results	Defense and National Security	Operational Defense	Annual # of simulations run.	5000	6000	1165832
2008	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to	Processes and Activities	Quality	Complaints	Percent CPU Utilization: Measures the time period (cycles) that a CPU actually performs its intended	50%	60%	60.0%

Performance Information Table

Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
	be more responsive to the threats of the 21st Century.				function to enable response to stockpile issues.			
2008	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Technology	Reliability and Availability	Availability	Percent Time Available: Measures platform uptime for simulation codes needed to perform predictive capability.	55%	60%	99%
2009	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Customer Results	Timeliness and Responsiveness	Delivery Time				
2009	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Mission and Business Results	Defense and National Security	Operational Defense				
2009	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Processes and Activities	Productivity	Efficiency				
2009	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Technology	Reliability and Availability	Availability				
2010	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Customer Results	Timeliness and Responsiveness	Delivery Time				
2010	GOAL 2.1 Nuclear	Mission and Business Results	Defense and National Security	Operational Defense				

Performance Information Table

Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
	Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.							
2010	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Processes and Activities	Productivity	Efficiency				
2010	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Technology	Reliability and Availability	Availability				
2011	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Customer Results	Timeliness and Responsiveness	Delivery Time				
2011	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Mission and Business Results	Defense and National Security	Operational Defense				
2011	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more responsive to the threats of the 21st Century.	Processes and Activities	Productivity	Efficiency				
2011	GOAL 2.1 Nuclear Deterrent Transform the Nation s nuclear deterrent and supporting infrastructure to be more	Technology	Reliability and Availability	Availability				

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
	responsive to the threats of the 21st Century.							

Section E: Security and Privacy (IT Capital Assets only)

In order to successfully address this area of the business case, each question below must be answered at the system/application level, not at a program or agency level. Systems supporting this investment on the planning and operational systems security tables should match the systems on the privacy table below. Systems on the Operational Security Table must be included on your agency FISMA system inventory and should be easily referenced in the inventory (i.e., should use the same name or identifier).

For existing Mixed-Life Cycle investments where enhancement, development, and/or modernization is planned, include the investment in both the "Systems in Planning" table (Table 3) and the "Operational Systems" table (Table 4). Systems which are already operational, but have enhancement, development, and/or modernization activity, should be included in both Table 3 and Table 4. Table 3 should reflect the planned date for the system changes to be complete and operational, and the planned date for the associated C&A update. Table 4 should reflect the current status of the requirements listed. In this context, information contained within Table 3 should characterize what updates to testing and documentation will occur before implementing the enhancements; and Table 4 should characterize the current state of the materials associated with the existing system.

All systems listed in the two security tables should be identified in the privacy table. The list of systems in the "Name of System" column of the privacy table (Table 8) should match the systems listed in columns titled "Name of System" in the security tables (Tables 3 and 4). For the Privacy table, it is possible that there may not be a one-to-one ratio between the list of systems and the related privacy documents. For example, one PIA could cover multiple systems. If this is the case, a working link to the PIA may be listed in column (d) of the privacy table more than once (for each system covered by the PIA).

The questions asking whether there is a PIA which covers the system and whether a SORN is required for the system are discrete from the narrative fields. The narrative column provides an opportunity for free text explanation why a working link is not provided. For example, a SORN may be required for the system, but the system is not yet operational. In this circumstance, answer "yes" for column (e) and in the narrative in column (f), explain that because the system is not operational the SORN is not yet required to be published.

Please respond to the questions below and verify the system owner took the following actions:

1. Have the IT security costs for the system(s) been identified and integrated into the overall costs of the investment?:

a. If "yes," provide the "Percentage IT Security" for the budget year:

2. Is identifying and assessing security and privacy risks a part of the overall risk management effort for each system supporting or part of this investment?

3. Systems in Planning and Undergoing Enhancement(s), Development, and/or Modernization - Security Table(s):			
Name of System	Agency/ or Contractor Operated System?	Planned Operational Date	Date of Planned C&A update (for existing mixed life cycle systems) or Planned Completion Date (for new systems)
NNSA ASC LANL Roadrunner Platform			

4. Operational Systems - Security Table:							
Name of System	Agency/ or Contractor Operated System?	NIST FIPS 199 Risk Impact level (High, Moderate, Low)	Has C&A been Completed, using NIST 800-37? (Y/N)	Date Completed: C&A	What standards were used for the Security Controls tests? (FIPS 200/NIST 800-53, Other, N/A)	Date Completed: Security Control Testing	Date the contingency plan tested
NNSA ASC LANL Redtail (Roadrunner Base Capacity system)							

5. Have any weaknesses, not yet remediated, related to any of the systems part of or supporting this investment been identified by the agency or IG?

a. If "yes," have those weaknesses been incorporated into the agency's plan of action and milestone process?

6. Indicate whether an increase in IT security funding is requested to remediate IT security weaknesses?

a. If "yes," specify the amount, provide a general description of the weakness, and explain how the funding request will remediate the weakness.

7. How are contractor security procedures monitored, verified, and validated by the agency for the contractor systems above?

Contractor security procedures are monitored, verified and validated by a comprehensive set of controls.

8. Planning & Operational Systems - Privacy Table:

(a) Name of System	(b) Is this a new system? (Y/N)	(c) Is there at least one Privacy Impact Assessment (PIA) which covers this system? (Y/N)	(d) Internet Link or Explanation	(e) Is a System of Records Notice (SORN) required for this system? (Y/N)	(f) Internet Link or Explanation
NNSA ASC LANL Redtail (Roadrunner Base Capacity system)	Yes	No	No, because the system does not contain, process, or transmit personal identifying information.	No	No, because the system is not a Privacy Act system of records.
NNSA ASC LANL Roadrunner Platform	Yes	No	No, because the system does not contain, process, or transmit personal identifying informtion.	No	No, because the system is not a Privacy Act system of records.

Details for Text Options:
Column (d): If yes to (c), provide the link(s) to the publicly posted PIA(s) with which this system is associated. If no to (c), provide an explanation why the PIA has not been publicly posted or why the PIA has not been conducted.

Column (f): If yes to (e), provide the link(s) to where the current and up to date SORN(s) is published in the federal register. If no to (e), provide an explanation why the SORN has not been published or why there isn't a current and up to date SORN.

Note: Working links must be provided to specific documents not general privacy websites. Non-working links will be considered as a blank field.

Section F: Enterprise Architecture (EA) (IT Capital Assets only)

In order to successfully address this area of the capital asset plan and business case, the investment must be included in the agency's EA and Capital Planning and Investment Control (CPIC) process and mapped to and supporting the FEA. The business case must demonstrate the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?	Yes
a. If "no," please explain why?	
2. Is this investment included in the agency's EA Transition Strategy?	Yes
a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.	NNSA ASC LANL Roadrunner Platform
b. If "no," please explain why?	
3. Is this investment identified in a completed and approved segment architecture?	No
a. If "yes," provide the six digit code corresponding to the agency segment architecture. The segment architecture codes are maintained by the agency Chief Architect. For detailed guidance regarding segment architecture codes, please refer to http://www.egov.gov.	110-000

4. Service Component Reference Model (SRM) Table:
Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.egov.gov.

Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused Name (b)	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
Modeling	Develop descriptions to adequately explain relevant data for the	Business Analytical Services	Knowledge Discovery	Modeling			No Reuse	20

4. Service Component Reference Model (SRM) Table:
Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.egov.gov.

Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused Name (b)	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
	purpose of prediction, pattern detection, exploration or general organization of data							
Simulation	Utilize models to mimic real-world processes	Business Analytical Services	Knowledge Discovery	Simulation			No Reuse	80

a. Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.

b. A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

c. 'Internal' reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. 'External' reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

d. Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the percentage of the BY requested funding amount transferred to another agency to pay for the service. The percentages in the column can, but are not required to, add up to 100%.

5. Technical Reference Model (TRM) Table:
To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)
Modeling	Component Framework	Data Management	Reporting and Analysis	
Simulation	Component Framework	Data Management	Reporting and Analysis	
Simulation	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	
Modeling	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	
Modeling	Service Platform and Infrastructure	Software Engineering	Modeling	

a. Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications

b. In the Service Specification field, agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

6. Will the application leverage existing components and/or applications across the Government (i.e., USA.gov, Pay.Gov, etc)? No

a. If "yes," please describe.

Exhibit 300: Part II: Planning, Acquisition and Performance Information

Section A: Alternatives Analysis (All Capital Assets)

Part II should be completed only for investments identified as "Planning" or "Full Acquisition," or "Mixed Life-Cycle" investments in response to Question 6 in Part I, Section A above.

In selecting the best capital asset, you should identify and consider at least three viable alternatives, in addition to the current baseline, i.e., the status quo. Use OMB Circular A-94 for all investments and the Clinger Cohen Act of 1996 for IT investments to determine the criteria you should use in your Benefit/Cost Analysis.

1. Did you conduct an alternatives analysis for this project? Yes

a. If "yes," provide the date the analysis was completed? 7/8/2008

b. If "no," what is the anticipated date this analysis will be completed?

c. If no analysis is planned, please briefly explain why:

2. Alternative Analysis Results: * Costs in millions

Use the results of your alternatives analysis to complete the following table:

Alternative Analyzed	Description of Alternative	Risk Adjusted Lifecycle Costs estimate	Risk Adjusted Lifecycle Benefits estimate

3. Which alternative was selected by the Agency's Executive/Investment Committee and why was it chosen?

The other alternatives did not meet the requirements to fulfill the mission need. The alternative selected provided the near term capacity computing cycles necessary for meeting program requirements. The advanced architecture portion of this alternative was made to explore future performance gains through exploiting advanced architectures since we believe we wouldn't continue to get "Moore's Law" rate of clock speed performance improvements with current technologies.

a. What year will the investment breakeven? (Specifically, when the budgeted costs savings exceed the cumulative costs.) 2011

4. What specific qualitative benefits will be realized?

Option 3 was selected because of the ability of the system to provide the computing capacity required as per the performance gap. The other options did not provide the capability nor capacity needed to carry out the Administration's mission. The other options also do not provide the ability to expand the capacity and/or capability that is anticipated as future needs.

5. Federal Quantitative Benefits

What specific quantitative benefits will be realized (using current dollars) Use the results of your alternatives analysis to complete the following table:

	Budgeted Cost Savings	Cost Avoidance	Justification for Budgeted Cost Savings	Justification for Budgeted Cost Avoidance
PY - 1 2007 & Prior			No data is available on Budgeted Cost Savings because each new generation supercomputer picks up and continues the resolution of scientific codes and calculations where the preceeding generation's supercomputer left off. ie: increased supercomputer capability is needed in order to progress to the next scientific level in meeting agency mission needs/goals.	Based on benchmark analysis of legacy system performance to current system performance cost avoidance due to energy efficiency is estimated. When specification of the supercomputer is made energy consumption is one of the operational constraints. Another constraint would be footprint.
PY 2008			No data is available on Budgeted Cost Savings because each new generation supercomputer picks up and continues the resolution of scientific codes and calculations where the preceeding generation's supercomputer left off. ie: increased supercomputer capability is needed in order to progress to the next scientific	Based on benchmark analysis of legacy system performance to current system performance cost avoidance due to energy efficiency is estimated. When specification of the supercomputer is made energy consumption is one of the operational constraints. Another constraint would be footprint.

5. Federal Quantitative Benefits
What specific quantitative benefits will be realized (using current dollars) Use the results of your alternatives analysis to complete the following table:

	Budgeted Cost Savings	Cost Avoidance	Justification for Budgeted Cost Savings	Justification for Budgeted Cost Avoidance
			level in meeting agency mission needs/goals.	
CY 2009			No data is available on Budgeted Cost Savings because each new generation supercomputer picks up and continues the resolution of scientific codes and calculations where the preceeding generation's supercomputer left off. ie: increased supercomputer capability is needed in order to progress to the next scientific level in meeting agency mission needs/goals.	Based on benchmark analysis of legacy system performance to current system performance cost avoidance due to energy efficiency is estimated. When specification of the supercomputer is made energy consumption is one of the operational constraints. Another constraint would be footprint.
BY 2010			No data is available on Budgeted Cost Savings because each new generation supercomputer picks up and continues the resolution of scientific codes and calculations where the preceeding generation's supercomputer left off. ie: increased supercomputer capability is needed in order to progress to the next scientific level in meeting agency mission needs/goals.	Based on benchmark analysis of legacy system performance to current system performance cost avoidance due to energy efficiency is estimated. When specification of the supercomputer is made energy consumption is one of the operational constraints. Another constraint would be footprint.
BY + 1 2011			No data is available on Budgeted Cost Savings because each new generation supercomputer picks up and continues the resolution of scientific codes and calculations where the preceeding generation's supercomputer left off. ie: increased supercomputer capability is needed in order to progress to the next scientific level in meeting agency mission needs/goals.	Based on benchmark analysis of legacy system performance to current system performance cost avoidance due to energy efficiency is estimated. When specification of the supercomputer is made energy consumption is one of the operational constraints. Another constraint would be footprint.
BY + 2 2012			N/A	N/A
BY + 3 2013			N/A	N/A
BY + 4 2014 & Beyond			N/A	N/A
Total LCC Benefit			LCC = Life-cycle Cost	

6. Will the selected alternative replace a legacy system in-part or in-whole? No

a. If "yes," are the migration costs associated with the migration to the selected alternative included in this investment, the legacy investment, or in a separate migration investment?

b. If "yes," please provide the following information:

5b. List of Legacy Investment or Systems

Name of the Legacy Investment of Systems	UPI if available	Date of the System Retirement

Section B: Risk Management (All Capital Assets)

You should have performed a risk assessment during the early planning and initial concept phase of this investment's life-cycle, developed a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

1. Does the investment have a Risk Management Plan? Yes

a. If "yes," what is the date of the plan? 2/3/2009

b. Has the Risk Management Plan been significantly changed since last year's submission to OMB? Yes

c. If "yes," describe any significant changes:

Risks associated with system delivery and acceptance retired.

2. If there currently is no plan, will a plan be developed?

a. If "yes," what is the planned completion date?

b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

Firm fixed-price contracts are executed with milestone schedules and payments that factor in investment risks. Payments are not made until milestones are met.

Section C: Cost and Schedule Performance (All Capital Assets)

EVM is required only on DME portions of investments. For mixed lifecycle investments, O&M milestones should still be included in the table (Comparison of Initial Baseline and Current Approved Baseline). This table should accurately reflect the milestones in the initial baseline, as well as milestones in the current baseline.

1. Does the earned value management system meet the criteria in ANSI/EIA Standard-748?	Yes
2. Is the CV% or SV% greater than +/- 10%? (CV%= CV/EV x 100; SV%= SV/PV x 100)	No

a. If "yes," was it the CV or SV or both?

b. If "yes," explain the causes of the variance:

c. If "yes," describe the corrective actions:

3. Has the investment re-baselined during the past fiscal year? No

a. If "yes," when was it approved by the agency head?

4. Comparison of Initial Baseline and Current Approved Baseline

Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in $ Millions). In the event that a milestone is not found in both the initial and current baseline, leave the associated cells blank. Note that the 'Description of Milestone' and 'Percent Complete' fields are required. Indicate '0' for any milestone no longer active.

Milestone Number	Description of Milestone	Initial Baseline		Current Baseline				Current Baseline Variance		Percent Complete
		Planned Completion Date (mm/dd/yyyy)	Total Cost ($M) Estimated	Completion Date (mm/dd/yyyy)		Total Cost ($M)		Schedule (# days)	Cost ($M)	
				Planned	Actual	Planned	Actual			
1	FY06 Initial acquisition and development	9/30/2006	$40.650000	9/30/2006	9/30/2006	$40.650000	$40.650000	0	$0.000000	100%
2	FY07 Acquisition and Development	9/30/2007	$14.600000	9/30/2007	9/30/2007	$14.600000	$14.600000	0	$0.000000	100%
3	FY08 O&M	9/30/2008	$2.700000	9/30/2008	9/30/2008	$2.700000	$2.435300	0	$0.264700	100%
4	FY09 O&M	9/30/2009	$2.700000	9/30/2009		$2.700000	$1.270600		$0.079400	50%
5	FY10 O&M	9/30/2010	$2.700000	9/30/2010		$2.700000				0%
6	FY 07 FTEs	9/30/2007	$0.030000	9/30/2007	9/30/2007	$0.030000	$0.030000	0	$0.000000	100%
7	FY 08 FTEs	9/30/2008	$0.040000	9/30/2008	9/30/2008	$0.040000	$0.040000	0	$0.000000	100%
8	FY 09 FTEs	9/30/2009	$0.040000	9/30/2009		$0.040000	$0.020000		$0.000000	50%
9	FY 10 FTEs	9/30/2010	$0.050000	9/30/2010		$0.050000				0%
10		9/30/2008	$41.900010	9/30/2008	10/17/2008	$59.409760	$59.409760	-17	$0.000000	100%
10		9/30/2008	$2.769380	9/30/2008	9/30/2008	$2.769380	$2.769380	0	$0.000000	100%
10		9/30/2008	$0.553880	9/30/2008	9/30/2008	$0.553880	$0.553880	0	$0.000000	100%
10		9/30/2008	$7.754250	9/30/2008	9/30/2008	$7.754250	$7.754250	0	$0.000000	100%
10		9/30/2008	$12.693000	9/30/2008	9/30/2008	$12.693000	$12.693000	0	$0.000000	100%
10		9/30/2008	$12.693000	9/30/2008	9/30/2008	$12.693000	$12.693000	0	$0.000000	100%
10		9/30/2008	$5.436500	9/30/2008	9/30/2008	$5.288750	$5.288750	0	$0.000000	100%
10				9/30/2008	9/30/2008	$4.185600	$4.185600	0	$0.000000	100%
10				9/30/2008	9/30/2008	$2.644400	$2.644400	0	$0.000000	100%
10				9/30/2008	9/30/2008	$5.288750	$5.288750	0	$0.000000	100%
10				9/30/2008	10/17/2008	$5.538750	$5.538750	-17	$0.000000	100%
11			$8.183100	11/26/2008	12/19/2008	$8.183100	$8.183100	-23	$0.000000	100%
11			$8.183100	11/26/2008	12/19/2008	$8.183100	$8.183100	-23	$0.000000	100%
12	FY11 O&M	9/30/2011	$1.800000	9/30/2011		$1.800000				0%
13	FY 11 FTE	9/30/2011	$0.050000	9/30/2011		$0.050000				0%

4. Comparison of Initial Baseline and Current Approved Baseline

Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in $ Millions). In the event that a milestone is not found in both the initial and current baseline, leave the associated cells blank. Note that the 'Description of Milestone' and 'Percent Complete' fields are required. Indicate '0' for any milestone no longer active.

Milestone Number	Description of Milestone	Initial Baseline		Current Baseline				Current Baseline Variance		Percent Complete
		Planned Completion Date (mm/dd/yyyy)	Total Cost ($M) Estimated	Completion Date (mm/dd/yyyy)		Total Cost ($M)		Schedule (# days)	Cost ($M)	
				Planned	Actual	Planned	Actual			
Project Totals		**9/30/2011**	**$115.443110**	**9/30/2011**	**12/19/2008**	**$132.952860**	**$126.638760**	**1015**	**$0.344517**	**95.51%**